

ABSTRACT

Aim: To evaluate the Temporomandibular joint osteoarthritis in symptomatic young adults using CBCT.

Material and methods: The present study was an attempt to evaluate the temporo mandibular joint osteoarthritis in symptomatic young adults using CBCT. 10 patients between the age of 20 – 40 years with signs and symptoms of TMD were included in the study. All the patients underwent CBCT evaluation of TMJ osteoarthritis using Care Stream 3D software.

Results:

- With respect to gender, there is higher frequency of osteoarthritic bone changes in the **female (80%)** than the **male (20%)**.
- With respect to gender, statistically significant finding observed was erosion with the **p value of 0.001**.
- The frequency of osteoarthritic changes obtained were **70% of erosion with a p value of 0.074**, followed by **55% of pseudo cyst with the p value of 0.655**, **40% of flattening with the p value of 0.371**, **15% of osteophyte with the p value of 0.002**** and **10% sclerosis with the p value of <0.001**. Statistically significant finding was observed were osteophyte and sclerosis.

- With respect to symptoms, all the samples showed variations in the condylar surface. No changes were observed in the articular fossa and eminence.

Conclusion:

This study presented a radiological evaluation of the variations in the osteoarthritic changes in the symptomatic young adults. A significant correlation was observed between the clinical and radiological findings with female predilection. The most prevalent finding in the present study was erosion, pseudo cyst and flattening. The variations of the findings in the present study may be due to the sample size and the age group selected. More specific guidelines for osteoarthritic changes in CBCT are needed to obtain better result.

Key words: Temporomandibular joint, osteoarthritis, symptomatic, CBCT